

February 1994

approach



Is There an *I* in Team?

By LCdr Steven Dunkle

When a two-seat aircraft flies into the ground, is it the result of poor crew coordination or pilot error? Most mishap reports for those incidents will include both of these causal factors. The blame should be placed on the pilot.

I base that statement on two premises. First, pilots are the only ones who can physically control the aircraft. Second, pilots come to depend on NFOs for information they can, and should, get for themselves.

After advanced jet training, with about 300 hours under my belt, I was quite capable of rolling in on a target, cross-checking dive angle, airspeed, pipper placement, and (most importantly) altitude — all by my lonesome. I even hit the target on occasion.

A few months later I rolled in on the same target, and as the nose steadied in the dive, I heard "ten five, 40 degrees." Boy, we sure have something over those A-7 weenies! A talking radalt, VGI or any other instrument you may want.

In the short term, it makes sense for NFOs to practice this method of self-preservation and give the pilot all the help they can. As a crew, you have to work together. In fact, the Intruder can't complete its mission without both crewmen. They are a team.

A buddy of mine once quoted his college coach, "There's no 'I' in team." It made a lot of sense at the time and probably has a lot of application on the football field, on



Bob Lawson

the flight deck, and in situations not discussed here. Some of these situations might even happen in the cockpit.

It's possible that there should be an "I" in team. For a pilot, that "I" means I am the only one that can physically keep this airplane from hitting the dirt. It shouldn't make any difference if my BN is having a bad day. We cannot afford to let "crew coordination" become "crew dependency."

How many of us have our right- or backseater read the approach plate while we narrow our scan and work on our ADI-cripple technique? How many times has your scan included only the target, because the BN is giving you dive angle, altitude and airspeed?

From a pilot's perspective, we need to wean ourselves from any reliance on the other crew members when it comes to flying the airplane safely.

My advice for NFOs: don't be a crutch. The next time a pilot asks you to read the approach plate to him, tell him you have simulated blood in your eye from your simulated birdstrike. Toss him your approach plate, and tell him to use his next time, so you can back him up with yours.

My advice for pilots: be a pilot. Dependency on the right side for ground avoidance is 100 percent wrong! Develop crew coordination as a backup of your cross-check technique. Remember, you are the only one with a stick ... use it.

LCdr Dunkle is pilot at TPS.

inside approach

Volume 39, Number 2

February 1994

The Feeling Every LSO Hates 2

By Lt. Paul Jennings

Someone's Lucky Day 4

By Capt. Bernie LaValley, USMC

Fishtailing Without a Hook 7

By Lt. Reggie Baker

It's the Checklist, Stupid! 8

By LCdr. William J. O'Brien

Good Thing We Listened to Those Ready Room Stories 10

By Lt. Scott Kelly

Riding the Wild Seasnake 12

By Lt. Tom Graziano

Dicing With a Slinky 14

By Lt. James Matheson

Red Means Stop... and Think 16

By Lt. Dave Wilfong

My Father Was Right 18

By Capt. J.W. Strieter, USMC



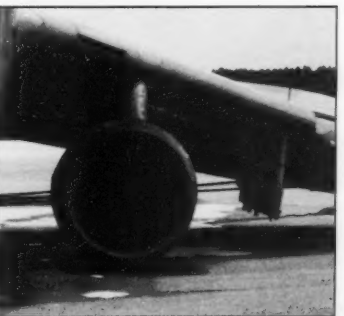
see page 4



see page 10



see page 16



see page 26

Breaking ICS 20

By Lt. Ted Dempsey

Making a Permanent Impression 22

By Lt. Michael P. Pitney

Two H-60s Can't Occupy the Same Space at the Same Time 24

By Lt. Jay B. Casper

The Big Bang 26

By LCdr. Mike Borowski

How Immediate Is an Immediate-Action Item? 28

By Lt. Tom Monroe

Oncoming? (More Like Incoming) 30

By LCdr. Allen Baker

DEPARTMENTS

Letters 24

Vultures' Row IBC

On the cover: CH-53E of HMH-486
Photo by Rick Mullen

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RAAdm. A.A. Granuzzo, Commander, Naval Safety Center
Bill Mooberry, Executive Director
Col. W.W. Scheffler, USMC, Director, Aviation Safety Programs
Cdr. John G. Mahoney, Head, Media and Education Support
Lt. Steven Halsted, Editor
Peter Mersky, Assistant Editor
Frank L. Smith, Graphic Design

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375 A Street, Norfolk, VA 23511-4399
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The Feeling Every LSO Hates

By Lt. Paul Jennings

The deck was steady as a rock, and the haze that made the day Case I stack such an adventure seemed to go away with the sun. The stars were out and it was our last night recovery in the Persian Gulf. We were heading home the next day! I was feeling confident on the platform. All the recoveries had gone smoothly that day, and I was beginning to feel like I knew what I was doing as team leader, which the CAG LSOs had made me a few weeks earlier. I'd had my squadron qual for a couple of months and had been waving as the back-up LSO for most of the cruise, so I figured if they thought I knew what I was doing, it must be true.

We had two new CAG LSOs join us in the gulf, both fresh from FRS waving duties. They both seemed happy to be back in the fleet, and wanted to get comfortable with waving the air wing as quickly as possible.

Pitching decks and nasty weather were waiting for us on our transit back to the states, so lots of MOVLAS training was the order of the day. Why not get comfortable with it under good conditions before we have to do it for real? Sounded good to me.

As we got ready to man the platform, I recalled what had happened on the final night recovery on the last cruise in the gulf. A Hornet had bent its AOA probe in a battle with a KC-135 basket and had come back for a no-AOA approach. The on-speed approach light was stuck on, but as the jet got in close, the LSOs realized it was dangerously slow and waved it off. Too late. Ramp strike! Not a good way to end a line period. Well, that wasn't going to happen on my wave day. Besides, I wasn't superstitious. Up to the platform and into the darkness we went.

The MOVLAS was rigged quickly and the CAG LSO jumped in as controlling LSO while I backed him up. Just out of curiosity, I asked him when was the last time he'd done MOVLAS.

"Except for the stuff today," he replied, "three-and-a-half years ago. Except for at the field, we don't do it in the RAG."

I knew that. Oh well, he *was* the CAG LSO.

The first jet was at two miles. Down he came for an OK 2. This was going to be cake! Only three more to go. Thank goodness for these small recoveries. One more guy down safely. Only two to go.

I'd watched this Tomcat on his CCA, fighting lineup all the way. I thought I was ready for anything he could throw at me. Immediately after the ball call, he did his best impression of a falling leaf. The Tomcat's huge wings were wagging back and forth, the approach light showed us a steady green as he pulled his nose up, and he settled well below the glideslope. The CAG LSO warned, "Don't settle," and I followed it up with a "Power" call. My pickle finger got extremely itchy as I watched him fight his way back up to the glideslope, still moving his wings in an effort to find centerline. The thought crossed my mind that this guy needs to try this again on another approach, but it was overruled by the realization that the CAG LSO was next to me on the MOVLAS. If he hadn't waved him off yet, then I guess I had no reason to sweat it.

The Tomcat pilot finally stabilized himself in-close. He was a little above glideslope but lined up left. One "Right for line-up" and he'd be in there. When I gave him the call, he put in a huge wing dip, showed us that ugly green light again, and settled like a rock. Enough was enough.

"Wave off, wave off!" Immediately, I knew I was too late. An overwhelming "Uh, oh," filled my mind as I heard his engines spool up in a vain attempt to go flying again. The pilot had not impressed me with his ball flying, and he did not impress me with his wave-off technique, either. He reefed back hard on the stick, no doubt reacting to the deck rushing up to meet him, and the hook of his jet dropped to clear the ramp by a few feet. The next thing I was waiting for was in-flight engagement of the 1-wire.

If in doubt,
there's no doubt:
wave the plane off.



Luckily, his sink rate was such that despite the power being at MRT, he and his jet slammed down about 20 feet in front of the 1-wire, on centerline, for a true Sparkler-One arrival.

The CAG LSO and I stared at each other with the same what-the-hell-were-you-doing look. The 5MC blared at full volume with some words of encouragement from the Boss that went something like, "Paddles! Blah, blah, blah *ramp strike!*" Yeah, Boss, we know.

The recovery tanker was at two miles now and my knees shook as we got him aboard. Done. History had definitely tried to repeat itself on this night.

Sleep did not come easily. I could not shake the thought that every LSO hates: "I should have waved him off earlier." The old axiom, "You can always no-count a wave-off, but you can't no-count a ramp strike," played in my head like a broken record. While I tossed and turned, I tried to summarize what had gone wrong, and I came up with the following points.

No matter who is waving, never count on the other guy to keep the plane off the ramp. Sure, I was backing up the CAG LSO—who hadn't waved night MOVLAS in more than three years! If in doubt, there's no doubt: wave the plane off.

With MOVLAS, exaggerate the ball movement at the start to get the plane where you want it. Once he's there, fine tune him on down. What the CAG LSO thought was a ball low at the start probably looked nearly centered to the pilot of the Tomcat.

Overconfidence and get-aboard-itis played a big role for me. We had been doing the same stuff for three months without a hitch. The deck was steady and the night, although dark, was clear. And most of all, the next day we were dots! Outta here! Gone! History! The Tomcat pilot was one of our "problem children." His squadron LSO was on the platform that night as part of my team, but failed to give a head's up to the new CAG LSO or myself that he was coming down the chute. Sure, we wave airplanes, not pilots, but there's no denying that some consideration has to be given to who's driving.

I'm sure you can draw a few of your own conclusions from this, too. The important thing that was drilled home to me that night was that when you pick up that pickle, you bear the awesome responsibility of ensuring the "safe and expeditious recovery of aircraft" onboard the ship. We have the final say in what is "safe," and we shouldn't be afraid to act on what we see.

Lt. Jennings is an A-6 pilot with VA-165.

Someone's Luck

By Capt. Bernie LaValley, USMC



We arrived at Lajes late one night on a flight to Bitburg AFB, Germany. The weather forecast said that although a high-pressure system would cover Germany for the next two days and warm clear skies would predominate, the weather en route to Europe would be poor below our planned flight altitude of 21,000 feet. I thought, "We won't be going there anyway," as we arrived in time to watch our KC-130 being refueled.

"How much fuel do we have?" I asked.

"42,000 pounds, following the navigator's guidance," responded the flight engineer.

"Better put on an extra 8,000 pounds for mom and the kids," I said in case that one-in-a-thousand multiple-emergency scenario should materialize.

We departed Lajes and began our climb to FL 210. The weather was exactly as forecast: a solid cloud deck blanketed the area beneath us, but the ride was

smooth.

Sixty miles west of the European coast, Santa Maria Oceanic contacted us on the HF to ask if we could assist with a SAR. They said that a "twin-engine aircraft at 200 feet AGL was going to ditch because it couldn't maintain altitude."

Our navigator had gone to the back of the aircraft momentarily, so I asked Santa Maria for the twin's last known position, which they provided along its point of origin (Lajes AFB), destination (Portugal), and heading.

After he returned, the navigator dialed in the emergency aircraft's position, which was about 350 miles directly behind us. We quickly checked our fuel and reversed course after notifying Santa Maria that we would help. After a crew discussion, we determined that we could provide about three hours on-scene if we changed our bingo divert to NAS Rota.

icky Day



Santa Maria gave us updated information and said that a USAF KC-10 was already on the scene looking for survivors. However, the KC-10 was low on fuel and would only be able to remain for about one more hour. Santa Maria had told the KC-10 (callsign: Hoist 06) that we were coming and then designated our present HF frequency as the emergency SAR common, allowing us to contact Hoist 06 directly. A discussion with Hoist 06 ironed out the details of our planned rendezvous, including establishment of a common UHF and VHF frequency, TACAN air-to-air channels, a common altimeter setting, and a hard deck for us until we made visual contact.

Hoist 06 was orbiting at 1,000 feet above the water. Our plan was to level off at 2,000 feet until visual contact. The only useable on-board equipment available to find Hoist 06 was TACAN air-to-air (DME only) and UHF-DF.

Although the clouds looked black and ominous, our radar revealed that there was no thunderstorm activity. We entered the clag at 18,000 feet and remained solidly IMC throughout our descent and after level-off at 2,000 feet.

We proceeded inbound to Hoist 06 using TACAN air-to-air and UHF-DF steers while probably passing over them, still solidly in thick clouds and unable to see the ocean below. It was obvious that our rendezvous plan would not work. After notifying Hoist, and checking for an increasing TACAN DME, we descended to 500 feet above the water.

We could now see the ocean, but we were still in a honeycombed milk bowl with numerous solid walls of clouds and rainshowers everywhere. We flew through a couple of these walls and found similar IMC areas on the other side. It was like we were trapped in a large honeycomb with a solid ceiling at 1,000 feet and pockets that were separated by walls of clouds everywhere.

This cloud mass was moving over the ocean at 20 knots, and to make matters worse, our navigator reported that our radar had quit working.

In VMC conditions, 500 feet of altitude separation would have made the rendezvous with Hoist 06 easy, but we now had another predicament: our UHF-DF wasn't working. Its antenna is on the bottom of the aircraft. Our own fuselage blocked the UHF transmissions from a source above us. We tried several head-on rendezvous but stopped because we were getting erroneous DF steer indications and wanted to remain within the confines of small VFR pockets.

In short, we were at low altitude in non-VFR conditions with no way to find the KC-10. Our plan violated numerous VFR safety-of-flight considerations: to fly through clouds at any time, at low level, and without an operable radar. The alarm bells and visions of a midair were dancing through my head. We were ad libbing our way through this thing, forced to rely on general rules based on previous experience.

On the fourth head-on rendezvous attempt, the solution finally materialized when we entered a relatively large VFR pocket four miles in diameter. We started circling, and let Hoist continue toward us. This plan worked, and Hoist saw us. While in a constant left-hand turn to remain VFR, the KC-10 overflew us. We joined on him and then flew through the goo for about 15 miles to the last known position of the life raft.

Miraculously, we spotted the small six-foot international orange life raft, which was now in the largest VFR area that we had seen thus far. After ensuring that

we had the raft, Hoist 06 bingoed home.

We immediately began circling the raft but soon lost sight of it because of the large radius of turn associated with our 170-knot airspeed. We eventually acquired the raft again but several crewmembers thought that it was a second life raft because of a lack of visual references over the ocean. I decided that the most important thing to do to help the survivor was to keep him in sight because Santa Maria had told us that a Portuguese SAR airplane would arrive in about 90 minutes.

Although we discussed it, we deliberately avoided dropping our seven-person capacity life raft until we knew when the SAR plane would arrive. There was about two hours of daylight left, and if something prevented the SAR plane's arrival, we wanted to have the ability to drop that poor guy a raft before nightfall. I also thought that if we lost sight of this small survival raft and let the wind blow us out of the area, it would be unlikely that anyone would be able to find him based on weather, the small size of the raft, and the fact that the winds or ocean currents were moving him quickly through the area.

We decided to slow to 140 knots and extend flaps to 50 percent, thereby reducing our turn radius. The plan was to vary our angle of bank based on the direction and speed of the wind to maintain a constant circling radius from the raft. This is identical to a maneuver that the FAA uses to train beginning pilots called "turns around a point." If we lost sight of the raft, we could use compass headings and known wind speed and direction to vary our angle of bank and at least keep us in the general area. We soon discovered that because of the KC-130's design, it was almost impossible for the pilots to keep the raft in sight at 500 feet without exceeding the maximum allowable angle of bank.

We modified this plan and used our crewmembers in back to keep the raft in sight by telling us to increase or decrease our angle of bank. This arrangement worked well and although we lost sight of the raft several times, our "turns around a point" maneuver al-

lowed us to find the raft as our radius (distance) from it remained fairly constant.

This story had a happy ending. The Portuguese SAR airplane eventually arrived and dropped two life rafts for the lone survivor. After he tied the life rafts together, the SAR plane left for home because it was low on fuel. We remained on scene for another 30 minutes trying to contact the survivor on our radios while expanding our circling radius looking for any other rafts or survivors.

Since the sun was going down, we overflew the survivor and rocked our wings before diverting to NAS Rota. A radio call to the SAR plane and Santa Maria Oceanic confirmed there was enough survival gear in those two life rafts to last for weeks, and that he would be picked up some time in the near future. Our short two-hour flight and late-night landing at NAS Rota

concluded this unusual day. ◀

Capt. LaValley was assigned to VMGR-252 at the time of this story.

We checked with LCdr. Jim O'Loughlin, a Coast Guard HC-130H pilot at USCGAS Elizabeth City. He complimented this can-do Marine crew, saying their



PH3 Franklin P. Call

finding the survivor was "pretty remarkable."

Trying to keep the survivor and his raft in sight by increasing AOB can be dangerous. If your pattern makes you exceed 30 degrees AOB, establish a race-track search pattern into the wind.

One of the things a pilot should immediately decide on during an ad hoc SAR is his altitude limit. USCG SOP is that if you don't break out of the clouds by 400 feet AGL, you climb. Also, after every second pass over the subject, update your INS with the new position.

Crew coordination is all-important. "In our aircraft," LCdr. O'Loughlin continued, "the flight engineer monitors the instruments and calls out the altitude."

One last suggestion, take a look at NWP 55-8-SAR, the SAR PCL. Even though you are not usually involved in regular SARs, like the Coast Guard crews, knowing where to go for quick information could help you if and when you find yourself asked to assist. — Ed.

Fishtailing *Without* a Hook

By Lt. Reggie Baker

We were a two-plane returning to Whidbey to shoot a couple of section approaches. Then, if the weather was workable, we planned to depart and reenter the break for a full stop.

I tuned in ATIS at about 80 miles out. It was typical Whidbey spring weather: a low cloud deck with scattered cloud layers above it and rain. The only advisory was of fair braking action on the runway.

We briefed our wingman that if we encountered any problems on the runway, we would use our takeoff-abort criteria for the arresting-gear priority: the first to the long-field gear would pass it up, unless cleared in by Dash 2. If not, he would have to use the overrun. And with that piece of admin done, we went about our business of setting up for the GCA approaches.

The approaches went by the book. The clouds were not a factor and the rain had stopped. The runway glistened with wetness, but there appeared to be no standing water. We did not notice anything unusual during our touch-and-goes. Therefore, after talking with the lead, we decided to remain a single flight and press for the over-head.

We checked in with Tower as we approached the initial. They said we were the only ones in the pattern, cleared to break at the numbers, and the braking action was reported as good. We pressed inbound to the numbers and broke.

As Dash 1 passed the abeam, he called for and received clearance for the flight to land. After reporting our gear down-and-locked, I mentally settled in for another normal field landing. We touched down and everything seemed normal; the pops came up and the pilot reported good brakes. But up ahead, there was a different story developing. Dash 1 seemed to be having a little trouble.

We were rolling past the 5-board as I noticed the lead aircraft madly fishtailing about 3,000 feet ahead of us. At one point, the nose of the jet cocked left while the plane

kept moving forward. Without a doubt, they were hydroplaning.

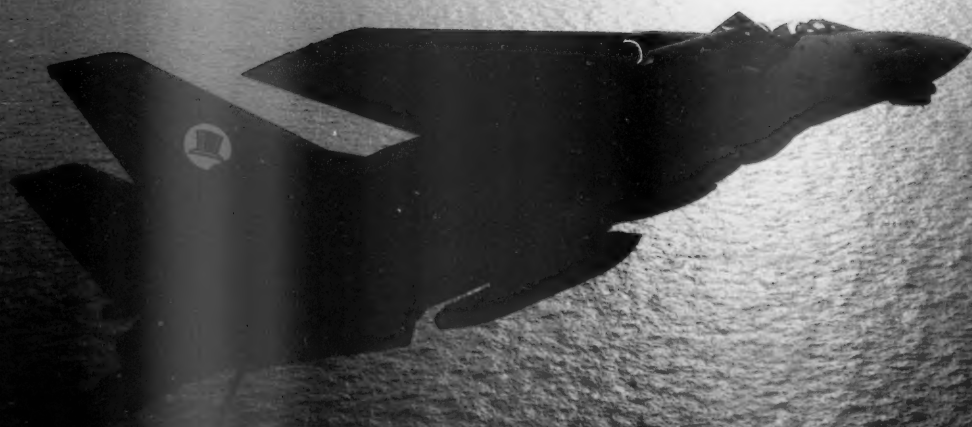
Our jet was coming up on the 4-board, and our speed was decreasing at a normal rate. It was not until we hit the 3-board that our situation began to change for the worse. The airspeed indicator read 0, but the jet had at least 50 knots of ground speed on it. The pilot mentioned that we were beginning to fishtail and hydroplane. Instantly, I thought of our section-abort procedures. We were about 300 feet from the long-field gear and running out of time to drop the hook. I looked at the pilot and noticed he had a boot full of rudder in to maintain our forward movement.

Then, I looked outside and noticed that Dash 1 was now under control and coming to a stop. I decided not to drop the hook.

It is truly hard to describe the feeling I had as we rolled over the gear with our jet not under complete control and Dash 1 still on the runway. Had I made the right decision? There was some serious doubt running through my mind.

Fortunately, our jet stopped without our using the gear. Everyone in the aircraft gave a sigh of relief as I called for clearance to taxi to our line. After the hop, we debriefed the entire flight. Everyone had some good comments about how I handled the runway situation. However, the general consensus was that I should have dropped the hook. Later, the mission commander pulled me aside. He started to run through some "what ifs" and reminded me that a trap was free, but the jet was worth millions. I explained I was 99 percent sure we would stop on the strip, or at least, have the overrun available. But we both knew he was right. He ended his comments by saying, "When there's a doubt, there is no doubt." ◀

Lt. Baker flies with VAQ-135.



It's the Checklist, Stupid!

The brief was typical for the last fighter event of the evening: a short cycle of high-altitude, supersonic intercepts to burn down to max trap weight. The only excitement expected was the competition for the most original close-in bogey maneuver and the anticipation of another night trap.

After running our intercepts and burning enough fuel, I joined the section for transit to the marshal stack, hoping for an early push. My TACAN azimuth had been acting up throughout the flight and now was completely unusable. I could either ask for random vectors to final or opt for a night section approach.

The weather was excellent, so I chose the latter to take advantage of the training opportunity and minimize comm on the approach frequency.

I passed the lead to my wingman, who told the marshal controller that we intended to push as a section and separate after I saw the ball.

We commenced on time as a section. After dropping the gear and flaps at 10 miles, my wingman (now flight lead) slowed the section to 150 KIAS. I was concentrating very hard on maintaining good parade position throughout the configuration change and deceleration. The master caution and flap lights illuminated as I lowered the flaps.

I felt the nose-down pitch change associated with flap extension. I checked the flap gauge (it showed normal extension); I concluded that the flaps had extended and that I had a "nuisance" flap light.

As we continued to decelerate to 150 KIAS, the flight controls felt somewhat mushy in pitch. The jet became increasingly sensitive in roll and the nose wandered a few degrees in yaw. Also, the angle-of-attack gauge appeared unreliable, showing an on-speed indication above 150 KIAS. Something was wrong, but I wasn't quite sure what it was.

Before starting the landing checklist, I decided to abort the approach and figure out exactly what was happening. We waved off as a section, climbed to a safe altitude, and I started troubleshooting. I cycled the flaps, which appeared to work normally, but the

approach speed was still too high. Then, I scanned the wingsweep gauge and saw approximately 45 degrees of sweep. I had been flying at 1,200 feet above the water at 150 KIAS with the gear down and main flaps only! Some time during the high-speed intercepts, I must have brushed against the wingsweep-control button on the right throttle, moving it from "auto" to the center, manual position. From that point on, the wings stayed in the last computer-positioned sweep. Since I had been performing high-speed intercepts, the wings were well aft of the 20-degree landing position.

How could I have allowed something so simple and obvious to bite me during a night approach to the ship,

when I thought I was at my sharpest? It's the checklist, stupid! I hadn't done the NATOPS pre-land-and-descent checklist. The fourth step of that checklist requires checking the wingsweep-mode switch in the desired mode (in this case, auto). In fact, I regularly failed to complete this checklist at the ship. How did I get into the habit of ignoring a required checklist?

After some honest evaluation, I found that I considered the NATOPS checklists to fall in two distinct categories. The first included the takeoff, landing and combat checklists. Any other checklist fell in another category that I considered somewhat less important and executed only when the situation warranted. These "optional" checklists included non-critical

items or switches that were normally already in the required position. Had I been making a high-altitude penetration at a strange airfield in poor weather, I certainly would have done this particular checklist. But this was a canned situation, one that I had done many times in the past.

In each of the four fighter squadrons I have served in, there have been aircrews who demonstrated this same attitude about checklists. Many complain that some checklists are too long and contain unnecessary steps. The solution is to recommend NATOPS changes, not disregard the checklist. Failure to perform every checklist every time it is called for can be a recipe for disaster.

LCdr. O'Brien flies with VF-202.

How could I have allowed something so simple and obvious to bite me during a night approach...

How many times have
you sat around the
squadron ready room
shooting the breeze with
your JO pals about
improbable "what if"
airborne scenarios?
How often have you
heard sea stories and
tales about narrow
escapes, embellished by
the old salts at the club or
squadron social functions?
I would imagine these
frequent occurrences
sometimes seem trivial.
*However, information
gleaned from these
stories can be added
to your bag of
airmanship tricks;
it may prove critical
when things go wrong.*

Good Thing We Listened to Those Ready Room Stories



By Lt. Scott Kelly

Following a thorough preflight brief, uneventful man-up and takeoff, my RIO and I were off on a routine air-to-air gunnery hop. After completing our firing runs on the banner, we proceeded to an open area for some 1 v 0 maneuvering before returning home.

Approaching the VFR break, I manually swept our wings aft to 68 degrees and accelerated to look "sierra hotel." Breaking at the numbers, I placed the wings to "auto" when the RIO reported, "300 KIAS wings," and felt the emergency wing-sweep handle move forward.

Decelerating unusually fast to 250 KIAS, I dropped the gear and started my approach turn off the 180 position. Almost simultaneously, my RIO exclaimed, "Our wings aren't out! Level your wings, power and climb!"

I instinctively complied, accelerating and gaining altitude to safely troubleshoot the discrepancy. I realized the error in my habit of placing my thumb on the emergency wingsweep handle to assure wing movement but not visually checking wing movement. Despite normal cockpit indications, the wings remained aft at 68 degrees and would not budge.

Entering the 3,000-foot delta pattern, we had just enough fuel to circle the field twice before setting up for a straight-in approach. I recalled a senior pilot discussing, in

great detail, his experience and technique recovering an aircraft with a similar failure. I had also been fortunate to be involved with researching the hazard report for the incident five months earlier.

Armed with this information, I quickly developed a game plan and reviewed our options with my RIO who agreed with me. The plan was simple: we would get an LSO on station, set up for a straight-in, check the winds, ensure the long runway's long-field gear was in battery, plan to drop the hook early (to allow time to blow the hook down if necessary) and finally review ejection options should we skip the wire with only 1,500 feet of runway remaining.

While setting up for the approach, we told Tower and base about our situation. During the approach, with the LSO en route, I slowed the aircraft to on-speed, which was very close to the F-14 tire speed of 190 knots. We touched down at about 180 knots and put the hook down just past the short field gear. I aerobraked until 2,000 feet before the long-field gear, and engaged the arresting gear at a little more than 120 knots. Engaging the wire, the aircraft came to an abrupt stop allowing the crash crew to quickly reach us.

I took a long breath and realized how little margin for error there is while making a wings-aft landing.



We handled this unusual emergency, thanks in part to listening to hypothetical situations in the ready room and to the experiences of others. This was the second time this year that a squadron member handled a situation that had been discussed during an informal conversation by "ready room cowboys." These conversations give us time to think of contingencies and formulate game plans for emergencies that might otherwise take us by surprise. ◀

Lt. Kelly, and his RIO on this flight, Lt. Kenny Whitesell, fly with VF-74.

By Lt. Tom Graziano

We were embarked in a *Spruance*-class destroyer for counter-narcotics operations off South America. Seasnake 15 had been a workhorse, logging numerous hours in pursuit of a "hot" target of interest while our ship skirted three hurricanes during the nine days it took to reach our operating area.

Riding the Wild



As a new H2P, I was rapidly gaining experience. My HAC was a good pilot and easy to fly with. He was a hard charger who believed in getting the job done.

We launched at midnight for two bags, the second was to climax with an on-top, sunrise bust. The first hop went without incident, taking us out 75 miles where our search radar picked up our predicted prospect. We returned to homeplate, hot pumped, and relaunched at 0330, excited about a visual identification and eventual VBSS (visit, board, search, seizure).

Fifteen miles out, at 5,000 feet in IMC, I noticed a faint flash from the corner of my right eye. Having been skirting storms all week, I assumed it was the ever-present lightning we'd become accustomed to. However, our aircrewman suddenly asked the HAC what was hanging behind his head.

I was surprised to see that the auxiliary circuit-breaker panel had fallen free and was dangling on a few wires, causing sparks every time it hit the airframe.

The HAC immediately passed the controls to me and, with the aircrewman's help, began troubleshooting while supporting the panel with both hands. At this point, I was thinking, "This is not good; we're only 15 miles out. Let's go back and shut down. We can relaunch in 30 minutes."

The HAC, however, thought he could fix this problem and, with the mission on his mind, decided to press on. He wanted to simply replace the CB panel and retorque the security nuts. Sounds simple enough. He's the HAC and he's always going to choose what's best, right? Normally, yes.

One half of my brain was saying this plan would work while the other was screaming at me to point out the obvious: existing weather, proximity to homeplate, quick turnaround time, and the fact that time wasn't yet critical to the mission. I should have said that this just didn't feel right. But I didn't, and that was a big below average in headwork on my part. A recovery at night in that condition would have been a hassle. However, it would have

Seasnake

been easy, compared to what awaited us. What followed the replacement of the CB panel was the scariest moment in my entire life.

When it came in contact with the overhead frame, the panel literally exploded into a fireball. We lost night vision almost immediately. Within seconds, we had a fire and dense, acrid smoke filled the cockpit, loss of aircraft automatic stabilization (ASE) and navigational aids, a No.1 engine fire light, a master-caution light panel lit up like a Christmas tree. To top it off, we had a constant radar altitude warning (RAWS) tone! The RAWS tone alone was enough to break most concentration.

I immediately opened my door to clear the smoke from the cockpit and began a slow turn-and-confirm maneuver for the No.1 engine's fire light while the HAC and aircrewman battled the fire in the overhead panel.

I had often heard the terms "sensory overload" and "a pilot's worst nightmare," but this incident gave them all new credence. As the fire was extinguished, the aircrewman suddenly yelled, "Are we going down?"

Looking at my VSI, I was shocked to see a 2,800-fpm descent. It was all happening too fast. Applying the collective had no affect on the descent. That's when I realized my attitude indicator (RAI) had frozen with loss of ASE—one of the things all H-2 pilots know but that I forgot in the confusion. I was flying partial panel in IMC!

I immediately gave the controls back to the HAC and his functioning RAI, but not before aggressively moving the cyclic to correct the descent and inducing severe blade stalls. We eventually recovered at 700 feet, just below the layer.

There is absolutely no doubt in my mind that had we not started this rollercoaster ride at 5,000 feet, I wouldn't be writing this article now. We remembered the picture we'd seen on our tactical navigation display before we had lost it, and steered off the magnetic compass toward

homeplate. Items in the cockpit continued dropping off line. The trick was discerning the real problems from the electrically falsified ones (because of the frying of the auxiliary CB panel).

With loss of fuel pumps, fuel was slowly becoming a problem as we searched for our ship, which was in EMCON for the bust. Our one bright spot had been the radios; we never lost them. We were able to contact homeplate and have them light up everything they had for our return. We were fortunate to have descended below the layer where, with the aircrewman and myself backing up the HAC's partial panel scan with our flashlights, he flew a perfect ASE-off, partial-panel approach and landed.

I spoke to the HAC and asked the burning question, "Was that really necessary?" He stuck to his guns, saying he'd do it the same way again. It was obvious he had no idea that situation could have developed. Who would?

As a HAC myself now, with more than 1,000 hours in the H-2, I always brief my H2Ps to question anything I do that makes them uncomfortable.

Lt. Graziano flies with HSL-33's Det 7.

Picking Up With a Slinky

By Lt. James Matheson

An *Approach* article from a few years back comes to mind as I sit here in Al Jouf, Saudi Arabia, on the top of my F-14 under the light of a full commander's moon. I should be landing back on the boat. Instead, I am taking notes for my first *Approach* submission on the back of a divert gouge pack that was so handy only a couple of hours ago.

The *TR* races down to the Red Sea to be in position in case our buddy Saddam decides to retaliate for a Tomahawk strike. It is the first day of long-range sorties in support of Southern Watch, and since I'm the most senior first-tour pilot, I get the nod to take my section over the beach. I look forward to adding a little green ink to my log book.

The brief by the F/A-18 mission commander is very thorough, and I spend an extra 15 minutes covering F-14 specifics, KC-10 procedures, and sticking to the basics.

The launch, rendezvous and initial transit to the KC-10 go well, with the F-14s passing up the hose on the first cycle. I watch the F/A-18s tank and think how nice it is to be on the KC-10 again after three months of daily bouts with the KC-135 "wrecking ball." A very quiet half hour passes with nothing but sand beneath us. Then it's our turn to tank.

I slide behind the basket, check for the amber light and plug in. The tanker is at FL240 and 280 KIAS, which requires me to use mid-range afterburner in a regime that has caused several TF-30 stalls in our squadron. I back out and ask the tanker to decelerate. He readily complies. I wait in the precontact position until I see 250 KIAS on the speedometer, throw the probe out, check for the amber light, and begin my approach, which now requires only mil power.

Satisfied with myself for taking the situation in hand, I contact the basket in the center with well-controlled closure and watch in amazement as a large sine wave starts to form in the hose. My amazement turns to horror as the sine wave comes racing back at me, only now it's bigger and looks a lot meaner. I had gone to idle power, but not quickly enough as I am not quite out of the basket when the wave snaps the hose cleanly off, leaving the basket and a 10-foot exterior spring with a heavy metal clamp still attached to my probe.

Luckily, my engines survived the initial catastrophe, but my hands are full as this spring and clamp are pounding the right side of the jet, making a tremendous noise and cracking the windscreen and canopy.

I find that if I turn left, the spring floats away from the jet, but since the nearest divert is 100 miles away, I know that sooner or later, I am going to have to deal with this "slinky gone bad."

I'm thinking, "I gotta get this thing off the jet before it beats us to death." I did not know until later, with toolbox in hand, just how difficult it was to get a stray basket off your probe. Miraculously, after a few more minutes of watching new cracks develop in the canopy, the spring got caught on the RIO's Pitot probe.

Unsure of the status of the engines or the canopy, and following some very able assistance from my wingman, we got pointed in the right direction toward our emergency divert field. We had minimal gouge on this field, since it had never been used as a divert. We hadn't flown a Rainmaker

to get information on the divert, so we hoped for the best as we raced the setting sun.

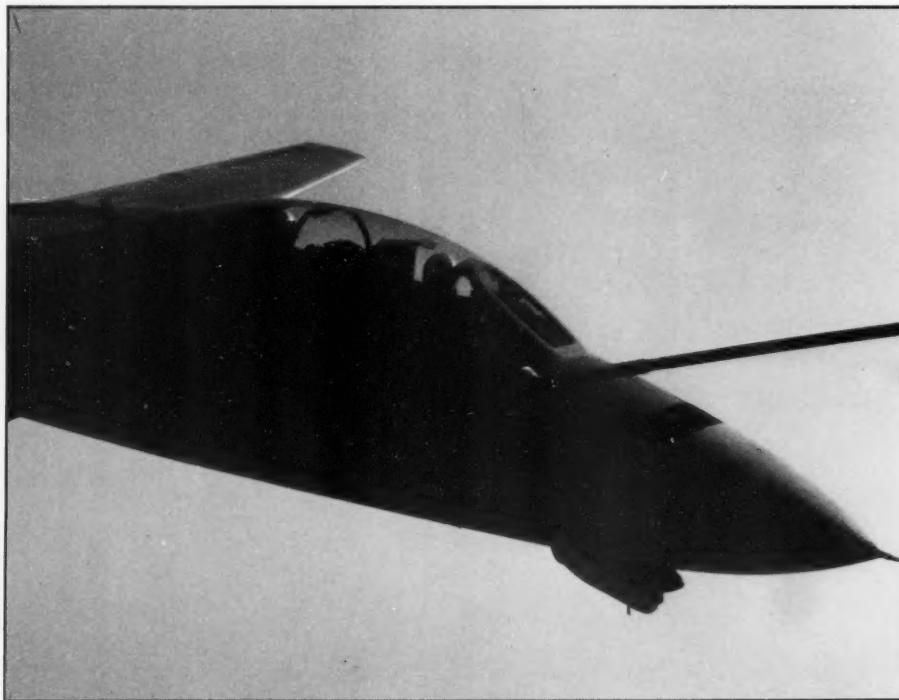
We tried all the frequencies we could think of, but no one wanted to talk to us. We finally decided just to land, hoping that they didn't shoot us down in the meantime. As we rolled onto final, it appeared that the runway was clear. I did see a truck at the threshold, but figured it was the crash crew waiting on us.

After we shut down, the one person who spoke English asked us, "Why did you not call us on the radio? Did you not know that the field is closed for holiday and repairs?"

The locals were extremely helpful. They even let us stand on the roof of their Buick to work on the basket, which we finally got off and gave to the Airport Director as a "gift." We thoroughly inspected the jet, dove the ducts, and finally got a phone call through to the ship's representative in Riyadh. We got a 1230 overhead for the next day.

Now, after all that's happened, my RIO is playing a card game with the local firemen while I am "guarding" our 2/2/1 loadout and contemplating the day's events

beneath this huge moon and warm desert breeze. Maybe I should have briefed the hop better, maybe I hit the basket wrong, maybe I should have known more about the divert, maybe, maybe, maybe...



CWO4 Joseph Cox, USMCR

•The next day...

Well, we made it back to the boat, and ironically, it turns out that another air wing bubba had the very same thing happen to him and got to explore some other uncharted divert field. Following some discussion between the air wing and the tankers, it appears that they were new in theater and might have been having some mechanical difficulties with their takeup reels. We have implemented a few different procedures and now have more gouge on a couple of the divers. In a way, I feel better that I didn't really screw up, but like a good mishap board, I would like some nice causal factor to point at. ◀

Lt. Matheson flew with VF-84. He is currently an instructor at Topgun.

Red Means Stop... and Think

By Lt. Dave Wilfong



We had just called "Platform" on a night approach to the ship in the worst weather I'd ever had the misfortune of flying in. The deck was pitching plus or minus 12 feet, the winds were gusting, and blowing rain limited visibility to less than a mile. The Hawkeye's abundance of radios allowed us to monitor the mayhem awaiting us on case III final. The approach frequencies were filled with calls from CATCC and

PH1 Michael D.P. Flynn

paddles as the more fuel-critical aircraft continued to press the deck. There were constant calls for, "Rain removal on," "Don't climb," and "Power!" We listened to the music and prepared for the inevitable "Hummer dance," the vertigo-inducing series of random vectors coupled with altitude and speed changes that would keep the aircraft far enough apart during an extended recovery.

Suddenly, the dark cockpit turned red with the illumination of the fire-warning light for the starboard engine. Just what I needed! My copilot and I immediately searched for secondary indications, while the CIC crew checked the nacelle for flames or paint discoloration.

I reduced power on the right engine to determine if a bleed-air leak might be heating the fire-warning element. Although the fire light continued to shine brightly, neither we in the cockpit nor the CIC crew could identify any secondary indications.

After we called Approach to tell them about our emergency, they gave us an immediate turn to downwind. The current opinion in the E-2 community is that all fire-warning lights should be treated as actual fires, and the engine should be secured immediately, whether secondary indications exist or not.

Although I was sure I could make a single-engine CV landing at night, no horizon, a pitching deck, turbulence, and poor visibility created an extremely dangerous environment. I hesitated to secure an apparently fully functional engine, only minutes from landing, solely because of a possibly erroneous

fire-warning element. We were now turning final, so I decided to leave the right engine running. Despite the distraction of the glaring red light, we landed without any other problems.

A maintenance inspection later revealed a faulty fire-warning element, after all.

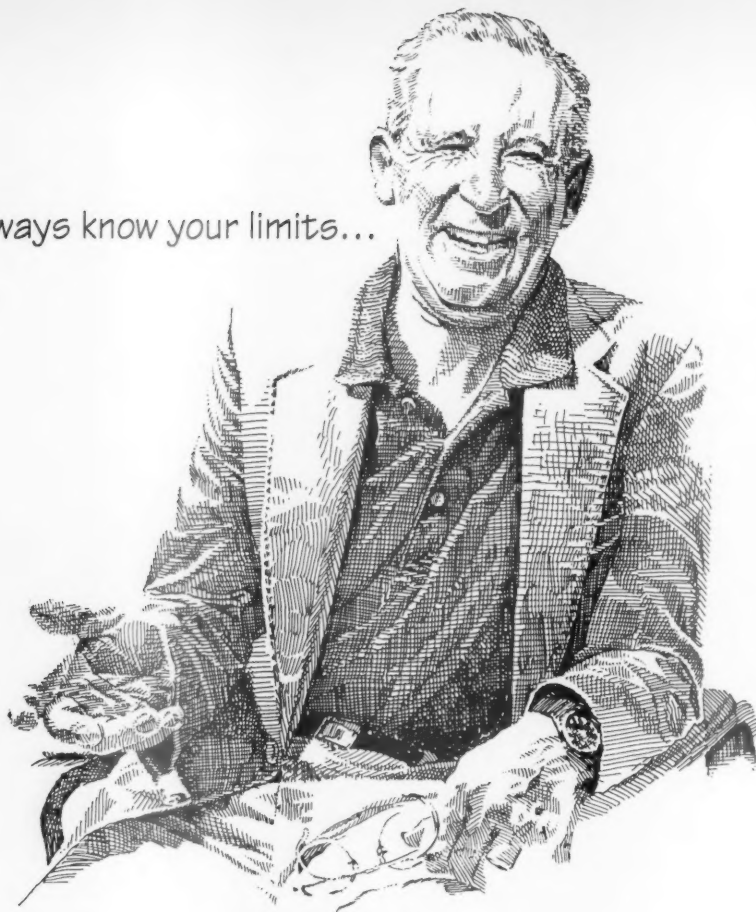
The preface in the NATOPS manual says that NATOPS procedures are not a substitute for sound judgment and situational awareness. That statement was driven home to me that dark night behind the boat. Community-wide gouge should be considered at crucial moments by the pilot in command as general guidance, not required procedure. A well-reasoned decision based on thorough knowledge of systems, training, and an accurate assessment of the environment will always lead to the correct response.

Lt. Wilfong flies with VAW-112. ◀

Sound judgment and intentional violation of NATOPS are mutually exclusive. Go against NATOPS and pull it off, and you may be a hero. If you're wrong, you may be hanging in your chute (if you're lucky) wondering how to tell your skipper why you just trashed one of his aircraft.

Aircrew delay in securing an engine after the engine-fire light comes on was a possible cause factor in a recent E-2C mishap. Procedures based on "community gouge" don't cut it; that method of thinking and flying went out in the early 1960s. Prudence and sound judgment would have dictated shutting down the engine—following NATOPS—when the fire light illuminated. — LCdr. J.B. Westerwick, E-2 analyst, Naval Safety Center.

Son, always know your limits...



My Father Was Right!

By Capt. J.W. Strieter, USMC



Recently, during a squadron reorganization, the flight-hour program got a little skewed. Because of some problems (such as schools), my detachment had only three pilots and 180 hours to fly each month. We should all be so lucky, right?

As the end of the quarter approached, the crunch to fly those flight hours began. About a week before the end of the quarter, I had to cancel a flight because the aircraft was down. As I got out of my flight gear, one of the schedule writers told me that we could not afford to lose those hours. My last flight of the month almost proved him wrong.

I had already flown 57 hours that month. I had a total of around 700 hours. I had recently graduated from the Aviation Safety School in Monterey, and because of the personnel problems I related earlier, I was the ASO, DSS, and NATOPS officer.

At 0800, the safety department was going to have a "courtesy inspection." Since I had to brief at 0800, I assumed that they would just inspect, and leave the results on my desk. The inspectors had a different idea, and it took a while to sort it out. After a great deal of confusion, I showed up 20 minutes late for my brief. The mission was TACFORM in section, followed by basic aircraft maneuvers (BAM) single-ship.

After the brief, I went back to my office and told the inspectors to come back at 1300. Just before I walked out to the aircraft, one of the schedules officers offered to take the hop if it was too much for me.

"No problem," I said. "I can hack it."

The flight began uneventfully. We launched on time, and climbed to flight level. Once established on the route,

I pushed my wingman out to combat spread, and accelerated to 400 KIAS.

The first turn was a TAC turn. As my wingman passed my 7-6 o'clock position, I began my hard turn. With a lot of things running through my mind, I neglected to prepare my body for the rapid onset of G. Immediately, my vision began to get fuzzy around the edges, and all I could see was the altimeter.

The next thing I heard was the radar altimeter's low-altitude warning tone, set to go off below 400 feet AGL. I looked at the radar altimeter, vision still impaired. I then looked at the HSI, and seeing only 10 degrees to rollout, I rolled out of the turn, and my vision returned.

I noticed ECMO 1 still looking to the right and aft, trying to find my wingman. As we continued the rest of the low level, it dawned on me how close I had come to killing all four of us. We split the flight, as briefed, and I proceeded to home plate, skipping the BAM portion.

When we debriefed, we found that none of the other crew members knew about my problems during the turn.

I learned a few things from that flight. First, there is no flight hour so important that it can't be flown another day. The second is that even a relatively mild turn (4-4.5 Gs) can gray you out.

I promised myself not to do my ground job between the brief and man-up.

My father was always fond of telling about the drunk who was questioned about his lack of self-control.

"I know my limits," he replied, "I just get drunk before I reach 'em."

Capt. Strieter flies EA-6Bs with VMAQ-2.

BREAKING

By Lt. Ted Dempsey

Our squadron was operating with an LHA just inside the VACAPES operating area. Day and night DLQ opportunities are scarce commodities for the H-53 community. As a result, when we do get a platform, we try to make the most of the time by taking several pilots per aircraft to the boat. One late afternoon, we launched two aircraft with several pilots onboard.

The first portion of the flight was above average for a trip to the boat for night DLQs. All four pilots onboard our aircraft had completed their day requels without any problems, and we were now logging night bounces in the coveted "pinky time."

The HAC was a senior lieutenant commander with more than 2,000 hours in the aircraft. The copilot and the rest of the pilots were qualified HACs. The crew was primarily made up of experienced crew chiefs. The Boss was accommodating, and the deck crew was proficient. Our comfort meters were pegged. On our next lap in the pattern, we told the Boss that we needed gas and he "charlied" us to a spot just aft of the tower. After landing, the HAC immediately called, "Pins, chocks, and chains."

The crew chief acknowledged the call and reported, "Breaking ICS, going out with pins and chocks."

Then he unhooked his ICS to get out of the aircraft and expedite the refueling. He understood that less time on deck meant more time in the pattern to complete our training and go home.

Unfortunately, at the same time as the crew chief was acknowledging the call, the Boss asked the HAC to move forward five feet to make room for our playmate landing on the spot immediately aft of us.

Not wanting to delay and perturb this accommodating Boss, the HAC then said, "OK, everybody, stay seated—we've got to move up."

He began pulling power to lift. The same thought seemed to hit everyone at the same galvanizing moment: "Where's the crew chief?" All eyes shot forward to the personnel door.

The worst thing they could have seen was an empty door. Any LSE will testify that the MH-53E deserves the nickname "Wind machine." When the aircraft lifts into a hover, the area immediately below the personnel door offers no sanctuary. If the crew chief was already out the door, he was probably going to be blown around the non-skid LHA deck by a 130-knot wind until he was caught by either the tower superstructure or fell into the water.

Fortunately, he was still in the doorway... barely. Without the upper or lower half of the personnel door in place, the only things holding him inside the aircraft were his excellent balance and 10 fingers.

Everyone in the cabin seemed frozen. Some were simply paralyzed by what they saw. Others couldn't answer one not-so-simple question: "What should I do?" Unstrapping and trying to grab the crew chief seemed just as dangerous as the present predicament. Saying something over the ICS seemed like the only remaining option. But, depending on what was said and how someone said it, that option could also create a more dangerous situation.

If a pilot knows a man's life might depend on how softly he landed, would that necessarily make the landing softer or harder? On the other hand, if the pilot doesn't



PH1 David J. Kruse

*He began pulling power to lift.
The same thought seemed to hit
everyone at the same galvanizing
moment: "Where's the crew chief?"*

know about the situation, will he take too long in setting the aircraft down? What kind of view does that position in the personnel door provide?

All of these questions came in a blur to us, and for whatever reason, we all elected to withhold blurting out a panic call and hope that the HAC was smooth.

Fortunately, he was, and the 55,000-pound aircraft settled gently onto the deck within seconds. Once again, the HAC called, "Pins and chocks." This time, however, the spirited response was not a "Roger!" but rather a colorful inquiry into the HAC's awareness of the crew chief's location for the past 30 seconds.

The discussion that followed was much less pretty than the landing. Those same comfort meters that had been pegged moments before were now parked flat at the 9 o'clock position.

The crew chief then did the only thing he thought appropriate to remedy the crew coordination gap (read canyon) which now existed between himself and the HAC. He calmly turned the crew chief responsibilities over to another qualified crewman, and asked to debark until the aircraft was going home.

The rest of the flight was uneventful and, after picking up our crew chief, we returned to NAS Norfolk. The HAC debriefed the crew chief privately.

First, the HAC must know the location of each crew member at all times. No one should assume that the crew knows what is happening, no matter how experienced or professional.

Second, shipboard operations tend to give the crew a sense of urgency. Everyone wants to look sharp and no one wants to clobber the deck. In retrospect, the opposite must be true. Every action during any event should be slow and deliberate. If the margin for error during normal operations is slim, then it is anorexic during night boat ops. In that environment, "Slow and steady wins the race" takes on an added meaning. ◀

Lt. Dempsey flies with HM-14.



Making a Permanent Impression

By Lt. Michael P. Pitney

The squadron's junior officers erupted in a chorus of laughter and applause as the CO walked through the front door of the ready room. Their focus was not on the skipper (he wasn't that funny), but on the purple gash across the bridge of his nose and his two black eyes. As the roar died down, Charlie Oscar began the AOM by recounting the events that led to his temporary disfigurement.

In our last liberty port, he was giving his spouse a tour of the flight deck, explaining the unique mission of the modern aircraft carrier. He looked forward just in time to walk into the trailing edge of an A-6 Intruder's wing, which made a nasty impression on the bridge of his nose. His flight-deck tour was cut short by a quick trip to medical. The doc declared the injury to be of the non-grounding variety and sent the CO to his rack to sleep off the resultant headache. It never occurred to me that one

day soon I would figuratively walk in his footsteps.

It happened following a typical night SSC mission in the IO. We had just trapped and had been parked at one of our usual spots on the bow. We shut down and hopped out of the jet. I took a deep breath and prepared myself for that long walk down the flight deck toward the island, the ready room, and safety. Being a salty fleet guy, I thought I knew all the flight-deck dangers: the tentacle-like tie-down chains, the hurricane-force exhaust, the deadly prop arcs, and the vacuum intakes.

As always, I switched on the gooseneck flashlight attached to my SV-2. My philosophy was that if I didn't see the roaring death that I was walking into, someone would see me in time to stop me before I was turned into pat'e. I then took a cautious look around, grabbed my gear, and started aft.

I've always felt that the toughest part of any evening

stroll on the deck during flight ops was crossing the dearming area forward of the island. Here the Hornets, Tomcats, and Intruders paused to be dearmed by AOs before being directed to their parking spots. I knew about the man-eating tendencies of these jets and took great care around this area.

I spent a minute or two negotiating the crossing during a momentary lull in Ordie activity. I continued aft, and thinking the tough part was over, I relaxed. Big mistake.

Working my way toward the lights of the island, my mind had shifted from the "flight" mode to the "I hope I can get to chow in time for a slider" mode. My smug satisfaction with having cheated death once again was instantly shattered as instinct took over where vigilance had left off, and I came to a sudden halt.

Less than two inches from my face, directly at eye level, was the trailing edge of an F-14's port stabilator. The glare from the lights on the island had prevented me from seeing the Tomcat's horizontal stab, which was at an angle so that it pointed directly at the lights and presented its narrowest aspect to me. It took me a few moments to realize where I was, and a couple more seconds to comprehend how seriously my face, and especially my eyes, could have been injured if I had taken just one more step. My visor would not have saved me because I wasn't wearing it.

When we launched in the afternoon, I had a dark visor on my helmet. Instead of changing visors when the sun went down, I simply raised my dark visor. After the recovery, I kept the visor up to see while walking on the deck, leaving no protection for my eyes. Where was my clear visor? Uselessly stashed in my helmet bag.

After my heart resumed a normal rhythm and I could get my feet moving again, I successfully made it below decks without further incident.

I learned three lessons that night. The first reinforces something that I already knew and had foolishly ignored: always ensure that you have the proper equipment—and that you are using it. Swapping visors takes only a few moments, less if you have a newer helmet.

The second lesson is that an active flight deck is no place for an aviator to linger. I should have ducked down one of the hatches on the starboard side and taken a passageway to the ready room.

Finally, I learned that a stationary, inanimate object like a chocked-and-chained F-14 can be almost as dangerous as a turning E-2C. If you're not careful, something is going to reach out from the dark and leave you with a permanent impression.

Lt. Pitney is the assistant strike operations officer onboard USS *Independence*.

PH1 Michael D.P. Flynn



Two H-60s



Can't Occupy the Same Space at the Same Time

By Lt. Jay B. Casper

How many people do you know who have survived a midair collision between two helicopters?

We were doing pad work. I was in the right seat, working single engine. On my third S/E approach, my instructor initiated a waveoff. I flew a smooth waveoff and looked for my interval. I took interval on another H-60 that had just left the pad to my right. We climbed through the crosswind turn, and as we rolled out on downwind, we were number three of three.

The first helo came abeam the pads and continued straight ahead, going to the runway (we assumed). The second aircraft came abeam and started his approach to the pads. We came abeam and started a descending left turn, keeping the second helo in sight.

I kept track of my interval through the 90, and rolling final, I turned my head to the right. At 3 o'clock, an H-60 filled my view as he entered my rotor arc.

I didn't have time to think, just react. I immediately dropped the collective, not all the way, because I was still simulating a single-engine condition, with one engine at idle. The other aircraft, when the pilot felt my blades bite his nose, immediately began climbing. If he had descended or if I had climbed, I wouldn't be here.

When he hit us, I was 20 degrees, left wing down. I remembered that my immediate impulse was to turn farther left, away from him. I didn't do that; I visualized how it had to go. I leveled my wings and he slid horizontally across my rotor disk as we dropped away. If I had turned further left, the blades on the right side of my aircraft would have been higher, and he could have gone right through the disk instead of passing slightly over it.

Less than a second after I first saw the other H-60, I thought, "We're going to be OK. I'm still conscious."

At less than 100 feet, I began slowing our descent. We leveled off at 50 feet. My instructor had

no idea why his student had made such an extreme maneuver. There was no way he could have seen the other helicopter from the left seat, and the vibration absorbers worked so well that we did not feel the impact. He had enough faith in me to let me keep the controls. He merely brought the other engine back on line and calmly called out my airspeed and altitude.

I landed the crippled aircraft on our pad. We breathed a sigh of relief and shut down. No one was hurt, although both aircraft sustained substantial damage.

OK, it's quiz time. Which of the other planes hit us?

That's right. The H-60 who was number one on downwind. The guy we assumed was going to the runway. He was actually going to the pad on our left.

We had flown a perfect rendezvous! The other guy started out with a two-interval head start, but we unintentionally used radius of turn to catch him.

Aviators tend to clear themselves into a turn. We look in the direction we are turning, but pay less attention to the other way. H-60s have notoriously bad visibility,

but we could have seen the helo that hit us if we had just been looking both ways.

The lasting lesson here is that it's not enough to simply follow your interval. It's not enough to just make a clearing turn to make sure that you have room to depart. Pilots need to know the whole pattern. We should have known that the first helicopter was not going to the runway. (He never asked Tower for clearance.) We should have been more aware of the whole traffic situation as we worked the pad.

Since this mishap, I have made a habit of asking myself, when I see other aircraft, what they are doing.

Next time you're in a crowded pattern, pick an aircraft somewhere and ask yourself, "Where is he going?"

Lt. Casper flies the SH-60F with HS-6.

**"Where
is he
going?"**

The Big



B a n g

By LCdr. Mike Borowski

I have read *Approach* religiously, and I had been waiting for the day that I could pen the story of how I heroically helped to save my stricken aircraft from circumstances beyond my control. However, I did not want to write this *Approach* story!

As a Cat II, who had successfully avoided becoming famous for nearly 12 years, I felt that my crew-coordination skills enabled me to make the most of the pilot-NFO relationship. What I didn't fully realize was that I was being selective about my crew coordination.

I knew that I closely scrutinized the decisions and actions of more junior pilots, but I was not aware of how much faith I was putting in the senior pilots in the squadron.

It was a CAVU afternoon, and we had briefed for a double-cycle ASW mission with some potential for "bagging" on recovery. We walked early because we wanted to avoid any unnecessary face time with the Boss, and we were the only "go" jet. As we taxied up to cat 2, everything was going smoothly. We spread the wings and completed our takeoff checks.

As we waited for tension, a section of Tomcats broke at the bow. For some reason, the Boss decided to catch them before shooting us and had us fold our wings. Being folded in the shuttle didn't suit our director, so he signaled us to raise the launch bar. Anticipating a long delay as a

second section of F-14s broke upwind, I started the APU to keep our computer from dying of heat stroke.

As I was soon to discover, my pilot had set the parking brake. This is where my faith in my experience hurt us. He distinctly remembers being taught the dangers of setting the parking brake while forward of the JBD, but he had always had to taxi forward into the shuttle immediately prior to tension, so he didn't worry about it.

Having had a previous tour as a catapult officer, I could have told him that he shouldn't worry about rolling because the holdback was attached to the buffer hooks and that his experience could be setting him up for a fall. We never discussed it until after this flight. As it turned out, the Boss decided to launch us between the two sections of Tomcats.

A flustered yellow shirt caught us both off guard by waving at us to spread our wings and lower the launch bar. Before I knew it, we were in tension going through a wipeout. We checked tapes, gauges, flaps, trim settings, and warning and caution lights just like we briefed.

I was busy shutting down the APU to avoid compressor stalls, and after a quick glance at the instruments, I gave my pilot a thumbs-up. He never saw the green emergency-brake advisory light on my side of the instrument panel. I missed the light because I was bent over trying to get the APU door shut and watching the cat officer.

As we went down the stroke, I heard a tire blow and felt what I thought was a pretty weak, and scary, cat shot. It was not until the Boss told us that we had blown our port main tire that we realized exactly what had happened: the parking brake was still engaged.

My pilot was angry with himself but handled it well. We realized we could reduce our impending ridicule, since the starboard main tire was still OK, and if we hurried a little, we could divert to home plate, get the tire fixed, and make our recovery time.

As we fought our way through the comm jungle that naturally accompanies any emergency, we talked our way through each contingency. I reviewed the NATOPS and briefed the crew. We talked about a shallow, slightly lined-up right approach, field bolter, LSO on station, potential of leaving the runway, and the possibility of blowing the starboard tire.

My pilot flew a textbook shallow approach to a field arrestment. I heard the hook touch down while he was holding the wheels off until just a few feet before the wire. The touchdown was gentle, but the vibrations of the port wheel were extremely severe. It was a huge relief when I knew we had caught the wire and Tower called, "Good arrestment." Everything seemed OK until just before the aircraft came to a stop. It leaned to the left and settled as the port main gear collapsed. We made a surprisingly smooth egress and then looked back at the

aircraft in disgust. We were not going back to the boat that day.

After the "bonus" flight physical that accompanies such events, we had a chance to reflect on what we had done, both right and wrong. The entire crew had been sure that we could make an uneventful arrested landing and get a quick fix.

Unfortunately, this overconfidence may have worked against us. We never did discuss asking anyone for advice. A second opinion on our problem might have alerted us to what we were really up against. Just one more review of NATOPS might have alerted us to the very real probability that the gear might collapse on landing rollout.

I don't know if there was anything that we could have done to prevent the landing gear from collapsing with that blown main tire. I will never forget what a depressing sight it was to see our maimed Viking lying on its side. I do know that I will never again take for granted items not covered in the brief or the experience level of my pilot. I know I will never pass up the opportunity to get an outside opinion on any in-flight emergency, and I will never again let even the most minor emergency go without the entire crew independently reading and discussing NATOPS procedures.

LCdr. Borowski flies with VS-24.



How Immediate Is an Immediate-Action Item?



It was a beautiful VFR day for FCLPs. I had just completed a bounce period in an S-3 with a new pilot. We landed, switched pilots, did our checks, and got airborne. The aircraft had only a few minor gripes up to this point.

After we took off, we cleaned up for a "depart and re-enter" for a carrier break. We were climbing through 1,000 feet, accelerating through 250 knots and still at MRT when *bang!* I thought the engine had exploded, or that we had a compressor stall or birdstrike. I quickly saw that neither of the engine-fire lights was lit. However, the flashing master-caution light indicated that we had exceeded an engine limit.

Scanning the engine limits revealed the No. 2 engine's ITT at 1,010 degrees C. The S-3's maximum ITT in MRT is 825 degrees; 1,010 degrees is the top of the scale. The Hoover allows this temperature for only a moment, but it had already been about five seconds and, now even at idle, this engine had no intention of cooling off.

I'm proud of my NATOPS knowledge and have been through a couple of emergencies like any other fleet aviator. I felt confident I could handle this emergency, but my blood pressure still rose a few points. The memory procedures for this situation in the S-3 are: throttle—off; fire-pull handle—pull; ignition switch—off. Or more commonly as most Hoover guys say it, "TFI." So, in an attempt to prepare the pilot for what I recognized as the problem and what we should do next, I said, in a not so calm voice, "TFI, No.2!"

Trying to equally impress me, the pilot proceeded to do the procedures at the same speed in which I said them. I realized the pilot had started the procedures when I noticed him reaching for the *wrong* fire-pull handle! A giant lump formed in my throat, but I managed to scream some sort of warning. He then made the right move and pulled the correct No.2 handle.

My heart was still in my throat. If he was reaching for the No.1 handle, then on which engine did he secure the throttle on the preceding step? I looked down, preparing myself for a low-level dual-engine failure and even possible ejection, but fortunately, he had secured the correct throttle.

We continued through the rest of the emergency procedures without any more problems. We told Tower of the emergency and that we would require a trap and emergency trucks. My heart and blood pressure were returning to normal, but as we all know, "The flight ain't over till it's over."

At the 90 on an extended downwind, the pilot put the

gear down and tried to retract the speedbrakes. Our first indication something was wrong was the extra buffet and the master-caution light flashing again. The pilot added power and quickly recognized that the speedbrakes had disconnected. He told me to re-connect them (his hands were quite full at this point). The speedbrakes re-connected fine, but we still had one more master-caution light, the No.1 starter caution.

In the S-3, this is a major emergency, which requires an engine shutdown. However, we were down to our last engine at this point and were riding this one in. Moments later, we determined it was a faulty light when the pilot reduced power and the light went out. I now felt that I was in the flight simulator from hell. I fully expected to look over my shoulder and see one of my FRS instructor counterparts typing in another emergency for us or flipping the weather-machine knobs to make it IMC at the field. Just in case he was there looking over my shoulder, I continued to scan all instruments.

Having everything back under control again, we rolled into the groove. Seeing an unusual configuration, the LSO nearly waved us off, but called us on the radio. I couldn't believe that Tower hadn't told paddles of the situation. After the pilot told the LSO what had happened, he cleared us for the trap.

A postflight inspection showed that the exhaust turbine had failed.

I may have many hours in the airplane, and I may instruct others, but I learned more in that five-minute flight than in the other 1,500 hours.

First, when shutting down an engine, we brief crew concept for verification of proper procedures (i.e., "No.2 throttle coming off," and other crew member agrees and guards No.1). Rushing to shut down an engine to save it, or because the big bang and flashing lights have scared the heck out of you, does not mean you can ignore the procedures for shutting down the *correct* engine.

I learned that I shouldn't rifle off all the memory items at once; I should give them one at a time. The pilot might have thought he had to complete all the steps in the manner his crewman was firing them at him. Know how immediate an immediate-action item is. No one engine is worth a dual-engine failure down low.

Second, keep your scan going, prioritize all situations, and make sure you complete *all* checklists.

Third, never assume the controlling agency has told the next controller about your situation. This precaution will eliminate surprises and may save you from an unwanted go-around.

Lt. Monroe is an instructor with VS-41.

Oncoming? (More Like Incoming!)

By LCdr. Allen Baker

So there I was, looking for some opportunity, gas right off the cat. I know it's hard to believe—a Hornet driver whining for the tanker—but it's true.

"Tanker king's at angels six," was the response to my request. I quickly located and rendezvoused on the offgoing tanker as he gave a package check to the oncoming tanker. I took position on the right wing of the oncoming bird, thirstily awaiting my turn with the offgoing gas giver.

I looked around for other like-minded gas-guzzlers. I was determined that no one was going to wedge me out of my sponge. All clear. With the package check complete, my best friends in the world detached, crossed under to my right, took the lead, and together we departed straight ahead. The oncoming tanker maintained his gentle left turn, continuing out of my field of vision and began to climb from 6,000 to 7,000 feet...or so we thought.

Clear of the oncoming tanker, the offgoing tanker asked me, "How much can you take?" This was too good to be true.

"Fill 'er up, mister!" came to mind, but "Two-and-a-half" came out.

My benefactors resumed an easy left hand turn and deployed the drogue.

As I approached the basket, I became aware of something in my peripheral vision to the left. I was startled to see the oncoming tanker still at 6,000 feet, on a collision course with me and my intended gas station. I saw the right-seater with his head down, oblivious to anything outside his aircraft.

In disbelief, I pulled power and pushed over. Before I could transmit a warning to either tanker, the offgoing aircraft pulled up, narrowly avoiding the collision-bound oncoming tanker as it slid between us.

At some point after the encroachment, the offending pilot realized what was going on and maneuvered away to the left. The offgoing tanker pilot transmitted terse instructions in an ancient language reserved for irate sailors, directing the oncoming plane to get clear of us, and to climb to 7,000 feet—immediately. This time, we watched until the hazard was well clear and level at proper altitude before reattempting the plug.

Somewhat shaken, but not deterred, I got my two-point-five from my heroes.

I didn't think much about what had happened until later that night at mid-rats, when several of us were playing the one-up game over auto dog. I realized that what nearly happened was only prevented by luck. If the offgoing tanker pilot and I had not seen the approach of the other tanker when we did, one or both of us would have made one spectacular fireball. Chalk one up for the good guys. We lived to tell about this one.

I've seen enough unbelievable buffoonery on the tanker, so I expect scary rendezvous and hazardous undershoots. But this was the first time I was nearly scraped off by another tanker.

LCdr. Baker flew with VFA-195. He is currently assigned to VFA-106 as an instructor.



LETTERS

Re: "Zero Tolerance" (Nov 93)

MCAS New River – In your call for a less tolerant policy toward aircrew errors in naval aviation, you imply that an excessive tolerance for mistakes and delta sierras now exists and that our blackshoe and ground brethren have the micromanagement solution. You also make an illogical and unsupported statement that a "less tolerant policy" should "reduce the mishap rate."

With regard to the former, I can assure you that "forgive and forget" is not the order of the day in the fleet and that a de facto "zero defects" mentality is already taking hold in some parts of naval aviation. The real or perceived notion of "one mistake and you're toast" has permeated naval aviation, resulting in risk-averting, take-no-chances, save-my-career behavior for JOs, to the point where they will refuse frags and missions to minimize skylining themselves should they make a mistake. As for the aircrew errors you cite, obviously they appear unforgivable, but equally obvious is that those aircrews remain in the cockpit for valid reasons.

Your latter statement is unsupportable because there is no significant reactionary rate among those involved in aircrew errors. While far too many marginal performers get through flight school and the FRS, they don't make all the mistakes and bonehead plays. I agree that marginal performers should be removed from naval aviation as soon as possible, but the shoot-first-ask-questions-later atmosphere that you endorse only serves to intimidate and encourage overcautiousness on the part of the good pilots as well as the marginal.

During my tour as a flight instructor

at Whiting Field (1981-84), no one left the training pipeline, except feet first or on a morals charge. The attitude was more Father Flanagan than anything else, i.e., every boy an aviator; no one fails. Perhaps we are paying for our excessive tolerance then and later.

A zero-tolerance/zero-defect policy will certainly reduce the mishap rate if naval aviators continue to evolve toward the zero risk, overcautious, "do I dare eat a peach" types you apparently admire, but that is the wrong solution. Yes, the Navy and Marine Corps can afford to be choosy, but let's choose aggressive, competent, combat-oriented pilots. If one makes a mistake or breaks the rules, straighten him out with good leadership; don't replace him with some mouse. Combat is still the name of the game. While the aircrews' errors cited have nothing to do with combat, your call for a blanket policy will affect all aircrews, not just the delta sierras.

Risk management, not micromanagement, will remain the proper policy for aviation. While we would all like to eliminate the stupid stuff, our business is too complex and too dependent on individual character to opt for simplistic solutions like zero tolerance.

LtCol. Paul S. Cariker, USMC
HMH-461

NAS Meridian – I was amazed when I read your editorial. We in the various safety departments in the Navy and Marine Corps work very hard to convince our peers that the concept of privileged information works. The thing that separates an AMB investigation from other investigations, is that we are supposedly interested in only finding out the mishap's causes. We are not supposed to be concerned with

punishment but, rather, education.

This lets people talk about things to an AMB that they may not want to mention to an FNAEB or JAG manual investigator. This is to ensure that no matter how embarrassing or stupid a mistake is, the truth can be found, keeping others from making the same mistake. If we are going to get in the business of punishment, we should fall under the direction of the JAG manual investigator, or better yet, just do away with the AMB process all together.

The fleet is already mistrustful of AMB. They feel that the information found during the AMB's investigation is often used by JAG manual investigations, FFPBs and FNAEBs. Adding ammunition to this argument, the most respected aviation safety magazine available to naval aviators says that we need to start punishing people. Several people in my command, who have contended from the start that AMBs are no different than any other military inquiry board, have expressed the opinion that it proves they were right and I was wrong about what the AMB's job is. I only hope that they are not the people with the critical information when it comes time to investigate our next mishap.

Capt. Madison H. Crum, Jr., USMC
VT-7

NAS Meridian – In your editorial, you make some excellent points concerning accountability and the need to enforce high standards. I am concerned, however, that your lead example of the training command pilot landing gear up who is still flying Navy airplanes may give readers a false sense of what is really happening in the training command today.

I don't know the specifics of the example that you used, but I know that in the past year, a student in this command who landed gear up is no longer in naval aviation. He was within two months of receiving his wings, and was an above-average student throughout his training.

The standards continue to rise in the TRACOM, and as we accept fewer applicants into the program, the quality of the aviators continues to go up. Keep up the good work.

Cdr. Tim Quinn
Commanding Officer
VT-7

Arlington, VA – I had a strong reaction to the editorial and felt I had to write.

Ships are different, if for no other reason than from a legal perspective. As we learn in safety school, military aviation is the only group that has the concept of "privilege" tested and confirmed at the Supreme Court level. There's no such thing in the surface-line world (or sub-surface, commercial aviation, or tanks...) as the concept of being able to do a no-kidding, get-to-the-bottom-line-and-don't-shoot-anyone safety investigation. For everybody besides us, the safety process can turn punitive in a heartbeat.

Aviation's unique legal stance spreads into the way we do business. A good squadron is one where senior and junior aircrews are willing to tell stories on themselves – admit errors – in hopes that they'll keep one of their buds from doing the same stupid thing.

One way I've seen it done is by starting the story with "a close personal friend of mine..." and proceed to the gouge. Bad squadrons keep mistakes hidden, for fear of embarrassment, or of being hammered or punished. The zero-tolerance approach will definitely inhibit this kind of "hangar talk."

What you propose would result in a squadron CO feeling bound to pun-

ish people. We have ways to do this now – FENABs, JAGs. I don't believe in a slap on the wrist before going back on the flight schedule. I did my share of counseling aviators who were perhaps too cavalier. As safety guys, I think we need to vigorously encourage an open-minded approach to mistakes, but not one of less tolerance.

LCdr. Bob Stoney
Naval Air Systems Command
(AIR-09P1)

My editorial generated a lot of comments. I'm glad somebody's reading what I write, even if they don't agree. Unfortunately, there seems to be some misunderstandings about what I wrote.

I do not advocate changing an aircraft mishap board into a punitive investigation. The concept of privileged information is essential to the prevention and investigation of mishaps. The procedures for punitive action already exist. I am questioning if they are used enough.

While the privileged information from a mishap investigation report is not released for use in punitive investigations, findings of fact from the evidence may be. The only goal of the MIR is to find the cause of a mishap.

There is a huge difference between taking a chance during combat to complete an essential mission and pushing the limits of your abilities in order to "systematically expand your own personal limitations." Training rules exist to enable aviators to improve their skills with minimal risk. Those rules are not optional.

An aggressive aviator who flies his aircraft effectively is not a risk taker. He avoids risks and flies the way he was trained. Whether the enemy shoots you down or you plow a field, the result is the same: one less airplane.

I did not assume anything about the aviators I discussed in my editorial. The facts show that they made errors, errors that were attributed to their skill, ability or judgment. They may or

may not have been substandard aviators. I want to know how we stop those errors and what we should do to the aviators who make them? Political correctness was not on my agenda. – Ed.

Re: "Too Close to the Scenery" (Nov '93)

FPO AP 96601-4303 – What this article points out is that identifying pilot error as the cause factor can severely restrict the scope and purpose of mishap-investigation reporting. As the story says, most pilots won't recognize any relationship between their own adverse behavior and that of a mishap pilot.

In naval aviation, we spend far too much time identifying what happened rather than why it happened, and what we can do to prevent it from happening again. A dead pilot will never cause another mishap. We should focus on cause factors we can do something about. Supervisory error is one such factor that can be a "primary vehicle for effecting positive change."

I agree with Mr. Lauber's view that the crux of the Scenic Air Tours mishap was not the pilot's performance on the day of the flight, but his entire history and his supervisors' failure to see it.

Lauber's dissent does more than raise interesting philosophical issues about probable cause. Unlike the use of scientific analysis to identify pilot-error cause factors, identifying supervisory cause factors is not an exact science. However, ignoring supervisory error because it might reflect unfavorably on the squadron or CO will not improve our mishap rate.

When the CO says in his endorsement, "I can't believe that my best pilot would blatantly..." he should be saying, "I can't believe that I failed to recognize or know about his performance before the mishap and that I failed to take appropriate action."

Cdr. G.A. Barnett
CCG-3

Re: "Endurance Test"
(Sep 93)

NAS Oceana – I was concerned about the analyst's note at the end of this article. Lt. Taneja's comments might make some contributors reluctant to submit articles detailing their mistakes.

When many contributors to *Approach* write an article they ask themselves if they really want to put themselves on report. Thankfully, most decide that the good of the Navy is more important than their individual embarrassment.

By saying that "poor headwork, machoism and fatigue" are all in this story, and that "Next time he [the pilot] and his RIO may not be so lucky," the analyst may cause some authors to reconsider their submissions, which would be an unfortunate loss to aviation.

Lt. Robert E. Burda
VF-103

We appreciate LCdr. Firanzi's sharing his experience with us, as we do all our authors.

Just how much and what to say about a contributor's mistakes is a constant source of concern for us. We don't want to step on anyone's toes, but sometimes, we need to ensure that none of our readers misses the lesson.

For another point of view on Editorial comment, see the next letter. – Ed.

Re: "Good Wings...Nice and Crunchy!" (Nov 93)

Los Alamitos, Ca – As a retired naval aviator with five Westpac cruises under my belt, I was absolutely amazed at the casual attitude of the author regarding the F-14's wing-tip damage. Where were the plane captain, the appropriate squadron-designated plane-checker, or squadron safety people?

I can't begin to tell you how my blood ran cold as I read the story. First, who put this NFO in charge of evaluating airframe damage, especially while perched in the back seat?

If this RIO was willing to fly in an aircraft with that level of damage, I wonder where he would draw the line? Sustaining this type of damage while airborne during wartime is one thing; accepting it during peacetime ops while still onboard the boat is another!

Lt. Connelly was furious with a number of people after this incident, including himself. However, it may come as a surprise to him that the front seater is ultimately responsible for the aircraft and crew. Who was manning the front office while all this was going on? It seems that he delegated all or a large part of the responsibility to his RIO. I have been reading *Approach* for close to 30 years and was surprised to find that this article was printed without comment!

LCdr. C.L. Valentine, USNR (Ret)

Vultures' Row

This list includes Flight, Flight-Related and Ground Class A Mishaps during FY-94.
Classifications and descriptions are subject to change.

DATE	AIRCRAFT	COMMAND	DAY; NIGHT	FATAL	FLIGHT REGIME; LOCATION
7 Oct	UH-1N	HMM-163	N	1	Takeoff; at sea
14 Oct	UH-1N	HMM-268	N	0	Towing, aircraft fell overboard (AGM); at sea
15 Oct	AV-8B	VMA-231	D	0	Birdstrike during low-level; Raleigh, NC
29 Oct	F/A-18D	VFA-106	D	0	Aborted takeoff; Whiting Field, FL
18 Nov	F-14A	VF-84	D	0	Training flight; Currituck Sound, NC
17 Dec	F/A-18A	VMFA-115	D	1	Air-to-air intercept; at sea
10 Jan	HH-46D	HC-6	N	3	Amphibious SAR support; at sea



***Know those
“lost brakes”
procedures...
the flight's not over
'til you're in the chocks!***

